LAND USE, FARM LAND and 4(f) RESOURCES[1]

The Maglev is the least intensive user of land of all ground transportation systems. A six lane freeway that includes two 10-foot shoulders and a 20-foot median will consume approximately 13.6 acres per mile not including interchanges and frontage roads. Figure 1 compares high speed rail with at-grade and elevated Maglev configurations. The at-grade Maglev land consumption is comparable to high speed rail. The elevated Maglev configuration can be a small fraction of that. This assumes that the Maglev guideway support structures will rest on small parcels of land and that the remainder of the guideway will occupy above-ground rights. This acquisition technique allows existing uses to continue unchanged beneath the guideway and between the support structures. Such uses include farms, ranches, industry, roads and freeways, parking lots, floodways, flood control facilities, wetlands, and animal travel corridors.

Figure 1: Land Consumption
Source: Adapted from Transrapid International
Note: (ac/mi) = acres of land per linear mile of track/guideway

The vast majority of the alignment between Las Vegas and Anaheim is planned to share right-of-way acquired for Interstate 15 and other freeways. The guideway can be accommodated in the same corridor except for minor deviations where the guideway curves must be wider to maintain speed and where grades are steeper than 10 percent.

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[1] Materials drawn from Parsons Transportation Group, Inc., *California MAGLEV Environmental Assessment*, 2000,
CNSSTC, *California-Nevada Interstate MAGLEV Project Las Vegas to Primm Segment Environmental Assessment*, 2000, and
FRA, *Final Programmatic Environmental Impact Statement, Maglev Deployment Program*, 2001.
FRA, Army Corps of Engineers, DOE, *Final Report on the National Maglev Initiative*, 1993

Five major exceptions to these general rules are under consideration:

- The corridor swings south of Barstow to avoid the built up area and returns to I-15 opposite the Factory Merchants Mall of Barstow,
- The corridor swings northwesterly of I-15 through Victorville,
- The corridor follows a power corridor and river plain over the El Cajon Pass,
- A segment deviates from I-15 to serve a planned station near the Ontario Airport, and
- The Santa Ana River corridor is being considered to link I-15 south of Ontario with Anaheim.

Since the Project Description in June, 2000, a sixth exception in the vicinity of Baker was eliminated from consideration. The route is not well enough defined to determine if any developed lands would be acquired.

The proposed Maglev route passes through the full range of land uses from National Forests through suburban to urban development. From a land consumption perspective, it can be expected that Maglev will have little or no impact on land use. Unlike freeways and railways, one continuous corridor 50 to 300 feet wide is not necessary to accommodate the guideway.

Land uses that are not likely to be affected by the Maglev are:

- Office – specific professional service uses,
- Commercial not near hospitality or residential uses,
- Light industrial – food processing and other non-manufacturing industries, and
- Heavy industrial – manufacturing and extractive.

The guideway might span low rise structures or it might be located within the required building setback as displayed in Figure 2.

Lands that may be affected by land consumption are:

- Farmlands – prime farmland, prime farmland considered locally important, farmland of statewide importance, and unique farmland; and
- "4(f)-Protected Properties – any publicly-owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State or local significance or any land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) within the meaning of section 4(f) of the DOT Act (49 U.S.C. 303(c))." [2]

[2] FRA, *Procedures for Considering Environmental Impacts*, May 26, 1999

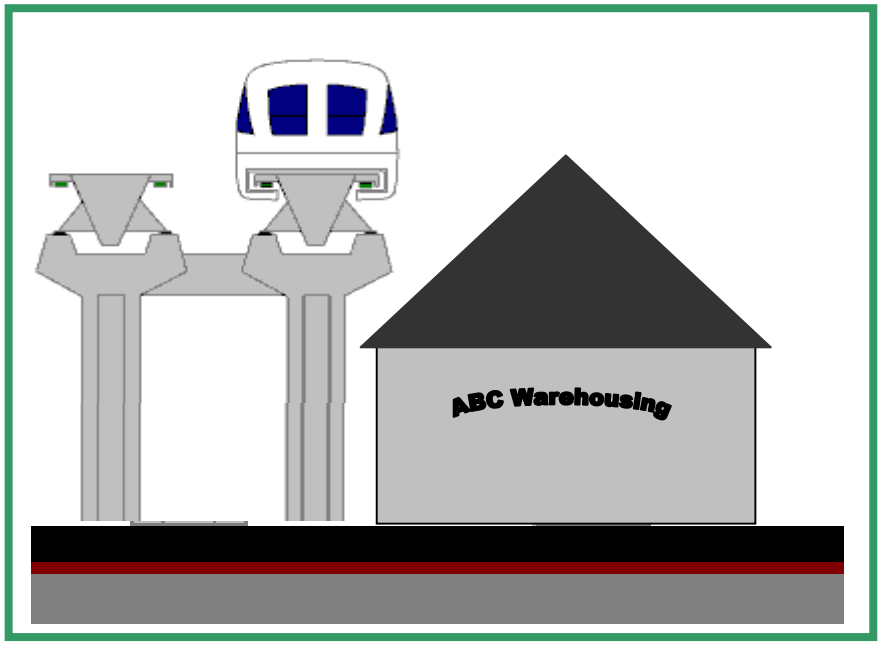

Figure 2: Guideway Next to Warehouse

There are no farmlands within the Nevada segments of the study corridor. There are areas of farmlands within the California segments of the study corridor. The California Farmland Mapping and Monitoring Program has mapped the farmlands in and around the incorporated areas along the corridor. Other than small parcels, virtually all of the farmlands lands north of the San Bernardino National Forest are grazing lands. South of the Forest, particularly south of State Route 60 and northwesterly of the Santa Ana River, there a fairly continuous area of prime farmlands mixed with farmlands of statewide and local importance. It is possible to continue farming and ranching activities under and around the guideway. It is expected that small farmland parcels may be avoided and others would experience a small loss of acreage.

As presently configured, the Maglev corridor could affect one or more 4(f)-protected properties. The majority of the route travels through land that, except for the Nevada Department of Transportation and Caltrans rights-of-way, are managed by federal agencies. Notably, the Soda Mountains Wilderness Study Area (WSA) appears to abut the northwesterly side of the Caltrans right-of-way near Baker, California. Further coordination with the Bureau of Land Management will be necessary to determine how close the WSA is to the Caltrans right-of-way. State and local parklands and historic sites will be identified as the environmental analysis continues.

What may cause conflicts with existing land uses are other features of the Maglev's operation such as noise. Of particular importance to the analysis are sensitive lands and land uses. They include:

- Residential – low, medium, and high density;
- Hospitality – hotels and motels; and

- Institutional – schools, houses of worship, universities, governmental, and cultural resources.

These land uses will be identified within a corridor width that may be impacted by noise. Commercial land uses can be affected by noise as well, if soundwalls are a necessary mitigation. The soundwalls can obscure commercial signage designed to attract passersby on an adjacent freeway. Commercial enterprises abutting the alignment that are mixed with sensitive land uses would be most likely to experience this conflict.